F001 <u>Use Fire Department Plan Review Guides for specific technical requirements. All applicable guides are required to be completed and submitted with plans</u>.

F002 **Water Supply for Fire Protection:** An approved permanent water supply for fire protection shall be available prior to combustible materials arriving on site for all construction projects.

Required Access for construction projects: Approved vehicle access for emergency vehicles shall be provided to all construction or demolition sites. Vehicle access shall be provided by temporary access roads, capable of supporting vehicle loading under all weather conditions. Temporary Access Roads access shall be maintained until approved permanent roads are available. Provide temporary access (roadway) to furthest point of the first floor of the furthest building to within150 feet from where the truck can stop. The route is to be measured around the building(s) along the access road(s) as the fire hose would be laid out. At the end of this a approved turn around or "T" shall be provided in accordance CFD Detail FD141.

F003 The site shall be provided with a private looped underground fire line providing water supply to all building fire sprinkler systems on-site in accordance with CFD Details.

F004 Underground water fire line installations shall be coordinated with fire protection installation requirements for the remainder of the site. **Future PAD installations shall be in accordance with current City Standards for underground fire lines and backflow devices for the entire site.**

F005 All stub out and temporary fire line terminations (Phased Projects) shall end with a PIV painted forest green.

F006 <u>Fire Department Connections shall be located at the primary entrances to the site. Hydrant and FDC shall be on same side of drive to prevent access from being blocked.</u>

F007 <u>Fire Department Connections shall be remote from the building (not located on the building).</u>

F008 <u>Fire Department Connections shall be located within 150 feet of a public fire hydrant (yellow).</u>

F009 <u>Fire Department Connection shall be located at least 36 inches away from PIV's and 18 inches from O.S. & Y. valves. Fire Department Connections shall be installed so the top of the Fire Department Connection is 36 inches from finished grade.</u>

F010 In landscaped or planter areas Fire Hydrants, Fire Department Connections and PIV's shall be located 6-10 feet behind the curb or be protected by bollards.

F011 Fire Department Connections shall have a minimum 3 foot (circumference) unobstructed clearance around the devices, in accordance with CFD Details.

F012 FDC's shall be red in color with 2-inch high white letters and numbers. FDC's serving multiple buildings shall be signed with the premise address on a sign. The sign shall be 10 inches by 8 inches, red in color with white 2-inch letters or numbers. See CFD Details. The signs shall include address (1234 - 46) of the premise(s) served by the FDC and shall be 0.08 gage aluminum. The sign shall be securely attached to the FDC check valve with "U" type bolts.

F013 Fire Department Connections for Multi-Family (R-1) shall be 1-½ inch female swivel connections, located on the building under the Audio/Visual (horn/strobe) device for the building. The FDC shall have a minimum 3 foot unobstructed clearance around and in front of the device. The FDC shall be installed so the top of the FDC is 36 inches from finished grade.

F014 PIV's shall be signed in accordance with CFD Details on the PIV as either riser or sectional control. All riser control PIV's shall include the address of the premise(s) served. PIV's shall be red in color with 2-inch high white letters and numbers. All future PIV shall be painted forest green.

F015 Show all fire hydrants on the plans (existing and proposed).

F016 All Fire hydrants installed on private and public water lines shall be provided with "OUT OF SERVICE" signs. Upon completion of required inspections, tests acceptance and approval of the water system and the system is verified to be in service, the "OUT OF SERVICE" signs shall be removed. Signs shall be in accordance with CFD Details.

F017 Fire hydrants (red) located on private a fire line shall not be located within 200 feet of a Fire Department Connection.

F018 Fire Hydrants shall have a minimum 3 foot (circumference) unobstructed clearance around the devices, in accordance with CFD Details.

F019 Fire Hydrant height clearance shall be measured 18 inches from the center of the 4 ½ inch cap to ground level (finished grade), in accordance with CFD Details.

F020 Fire Hydrant reflective markers on private fire systems shall be in accordance with CFD Details.

F021 All buildings except Group R, Division 3 occupancies shall be provided with an approved automatic fire sprinkler system installed in accordance with CFD Standards.

F022 All fire sprinkler systems for Multi-Family (R-1) shall be third party monitored and an on-site fire alarm annunciator panel shall be installed at the office/clubhouse.

F023 A Residential (Group R, Division 3 occupancies) Fire Sprinkler System. Any person, including but not limited to sub dividers, developers, sellers, and/or realtors, offering homes for sale through the use of a model home sales office, shall provide to each prospective homebuyer an educational brochure or handout explaining misconceptions and facts concerning residential automatic fire sprinkler systems, and, further, shall cause to be provided, as an available purchase option, to the homebuyer, an approved residential automatic fire sprinkler system, to be installed in the home as the home is constructed, at a competitive cost, by an Arizona State licensed fire protection contractor. The City of Chandler Fire Department will have available acceptable brochures for use by such sellers. Such sellers shall, at the time a purchase and construction contract is executed, obtain signed documentation from any homebuyer who chooses to decline an optional fire sprinkler system.

F024 Residential (multi-family) - all private shared domestic and residential fire line mains shall have a reduced pressure backflow installed per COC Detail C-315.

F025 All shade structures 3000 square feet and larger shall have automatic fire sprinklers installed.

F026 Provide the proposed occupancy classification, square footage under roof, and construction type of the building and areas within the building.

F027 A second independent Emergency Fire Apparatus Access Roadway (means of ingress/egress) shall be provided to the site.

F028 Provide a turn around that meets the Fire Departments turning radius, 26 feet on the inside and 42 feet on the outside, in accordance with CFD Standards.

F029 Permanent access (roads/roadways/all weather surfaces) shall be provided to all portions of the building within 150 feet from where the truck can stop. The route is to be measured around the building(s) as the fire hose would be laid out. The route is NOT to be measured through interior or covered walkways.

F030 Show fire lanes, signage locations and the sign detail on the plans, in accordance with CFD Standards.

Pre-site General Comments

F031 Any structured located across a Fire Apparatus Access shall have an unobstructed vertical clearance of not less than 13 feet 6 inches. The vertical clearance shall be increased if the Chief determines the vertical clearance is not adequate to provide fire apparatus access.

F032 Show any gates or other barriers limiting 24-hour access to the site and describe in a note, in accordance with CFD Standards.

F033 Electrically operated or locked gates installed across required fire apparatus access roadways shall be provided with Pre-emption devices and key switch. The gate(s) with the Pre-emption devices shall remain open for 30 minutes after the first unit enters, to allow other units or ambulances to enter during emergencies.

F034 Group E, Division 1 and Division 3 occupancies having an occupant load of 50 or more shall be provided with an approved manual fire alarm system. When automatic sprinkler systems or smoke detectors are installed they shall be connected to the building fire alarm system, and the building fire alarm system shall be automatic and manual.

F035 Underground fuel storage tank installation plans shall be submitted to the State Fire Marshal's Office for review and approval prior to submittal to the City of Chandler.

F036 All fuel island canopies shall have automatic fire sprinkler installed.

F037 Electronic Hazardous Materials Inventory Statement (HMIS) is required to be completed for Plan Review and submitted with construction drawings to Development Services. The electronic version shall import into the Fire Departments software. The Fire Department is using software from Encompsol (ECS). Any format can be used as long as it will import into the Fire Departments software.

ECS may be contacted at web site www.encompsol.com to obtain information on the software or to determine what will import into the system.

A copy of the Material Safety Data Sheets (MSDS) shall be in a .PDF format and attached in the software. If you need assistance with this please contact the Chandler Fire Department at 480-782-2121.

F038 A Key Box is required when the fire sprinkler riser control is inside the building and/or when a fire alarm system is installed in the building. Refer to Chandler Fire Department Plan Review Guides and Standard Details FPB#015 Key Box/Electronic Access Gate(s) Requirements for placement locations.

F039 Buildings and Structures that are five (5) floors or 75 feet in height or more above grade or which can be characterized as "High Rise" buildings **OR** underground buildings and structures, or components thereof, totaling ten thousand (10,000) square feet or more that are either more than two (2) floors or more than thirty (30) feet below grade shall be required to have an internal **"Breathing Air Replenishment System"** installed per city ordinance.

F040 Buildings and Structures that are thirty-five (35) feet high or higher or underground buildings or structures or components thereof totaling ten thousand (10,000) square feet or more that utilize metal framing and / or metal roofing that have a **minimum radio signal strength** of less than one (1) microvolt either transmitted out of or received within the building shall be required to have an internal **"Emergency Radio Communications System"** installed per city ordinance.